CW#58&HW#58: Transformations w/ Dilations

Geometry

Due: Tuesday, Dec. 15th

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP:\_\_\_\_\_

Failure to show ALL WORK and follow all directions COMPLETELY will result in LaSalle.

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| You will be able to perform a series of transformations including translations, reflections, rotations, and dilations. | |
| Refresher! What strategy do you use to perform a dilation centered at the origin? | |
| *[Example]*  *PLU* is translated 1 unit left and 4 units up, then dilated by a scale factor of 2 (centered at the origin). The coordinates of the pre-image are given below, find the coordinates of the first image and the final image.  ’’ | |
| Directions: Given the coordinates of the pre-image, find the coordinates of the first image and the final image of each shape below. Take all the dilations to be centered at the origin. You MUST include a graph with the pre-image, first image, and final image. | |
| 1. Triangle *VHN* is translated 3 units right, then dilated by a scale factor of ½.  ’’ | 2. Triangle *TXN* is dilated by a scale factor of 2 and reflected across the line x=-1.  ’’ |
| 3. *LAX* is rotated 180° about the origin, then dilated by a scale factor of 4.  ’’ | 4.. Triangle *BSG* is reflected across y=3 and dilated by a factor of 3.  ’’ |

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| 5. Triangle *WTD* is translated 6 units right and 1 unit up, then dilated by a scale factor of ¼.  ’’ | 6. *GNIX* is dilated by a scale factor of 5 and reflected across the line x=2.  ’’  ’’ |
| 7. *MPZK* is dilated by a scale factor of 5 then rotated 90° clockwise about the origin.  ’’  ’’ | 8. *YGIR* is rotated 90° counterclockwise about the origin and dilated by a scale factor of 7.  ’’  ’’ |
| 9. Triangle *HJI* is reflected across the x-axis then dilated by a scale factor of .  ’’ | 10. *LACD* is rotated 180°about the origin then dilated by a scale factor of 6.  ’’  ’’ |
| 11. Triangle *AHI* is rotated 90° about the origin then dilated by a scale factor of 9.  ’’ | 12. Triangle *IJF*  is dilated by a scale factor of 2 then reflected across y=2.    ’’ |

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| Directions: Find the slope of each line.   1. 2x – y = -3 2. x + 5y = 0   List the slopes from steepest to flattest.  (steepest) | 1. 7x – 4y = -20   4. 3x + 2y = -6    (flattest) |

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| The diameter of a circle is 20.4 ft. Find the circumference of the circle rounded to the nearest tenth. | The diameter of a circle is 22 in. Find the area of the circle rounded to the nearest 10th. |
| The circumference of a circle is 12π in. Find the area. | The area of a circle is 100π yd2. Find the circumference. |

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| Find the perimeter and area of the figure below. ../../Q2%20Interim%20Questions/Interim%20Q2/Area%20and%20Perimeter/AP_5.png | Find the perimeter and area of the figure below.  ../../Q2%20Interim%20Questions/Interim%20Q2/Area%20and%20Perimeter/AP_3.png |